

REMARKS

The specification and claims are amended to correct typographical errors. Applicants apologize for not submitting these corrections sooner. No new matter is submitted.

Entry of this amendment is respectfully requested.

Respectfully submitted,
FROMMER LAWRENCE & HAUG LLP

By:



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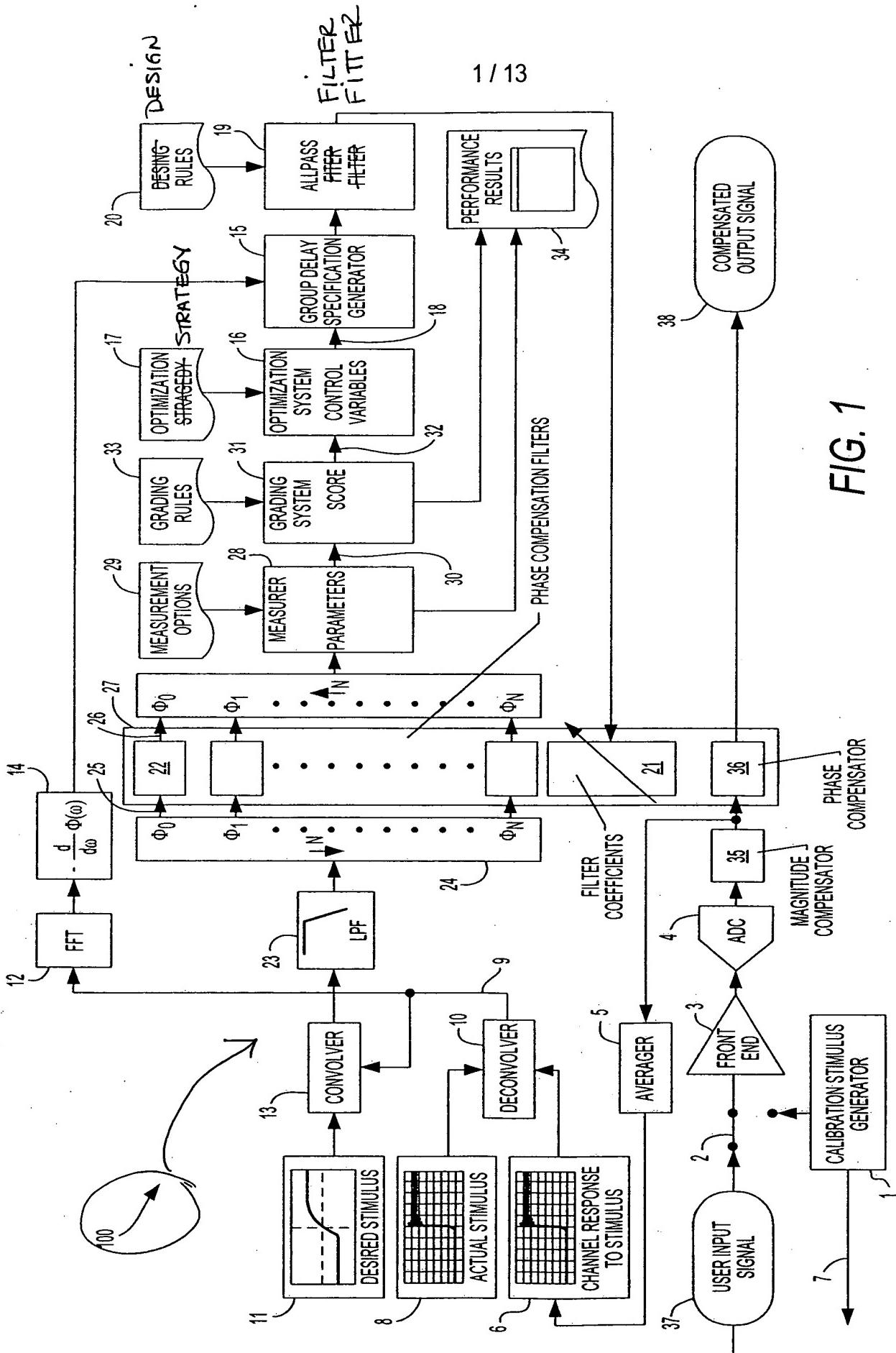


FIG. 1

FIG. 2

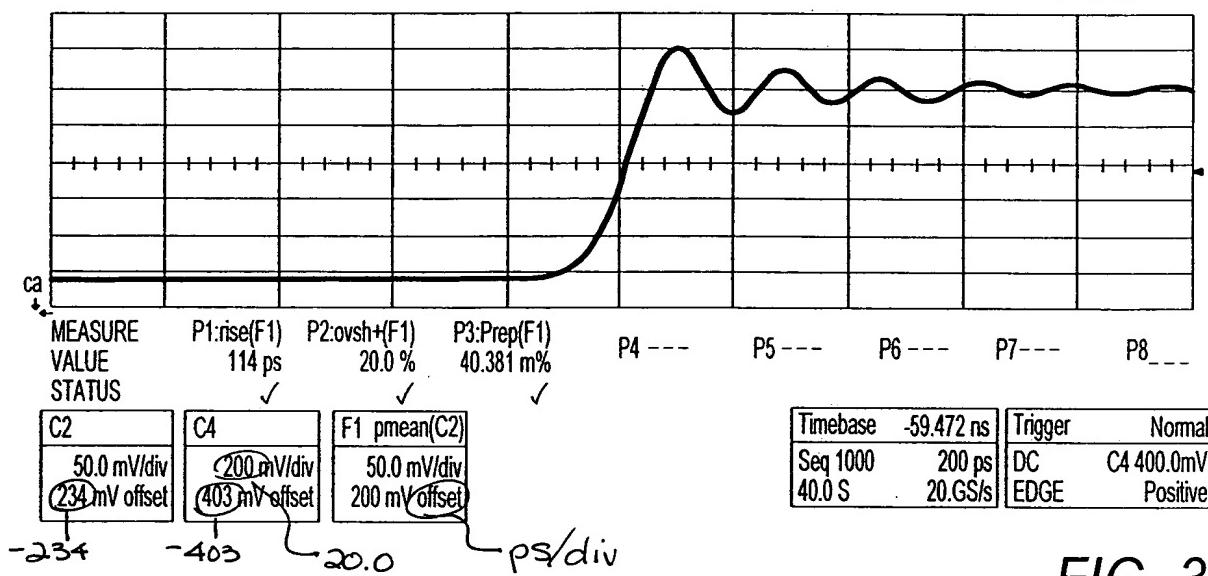


FIG. 3

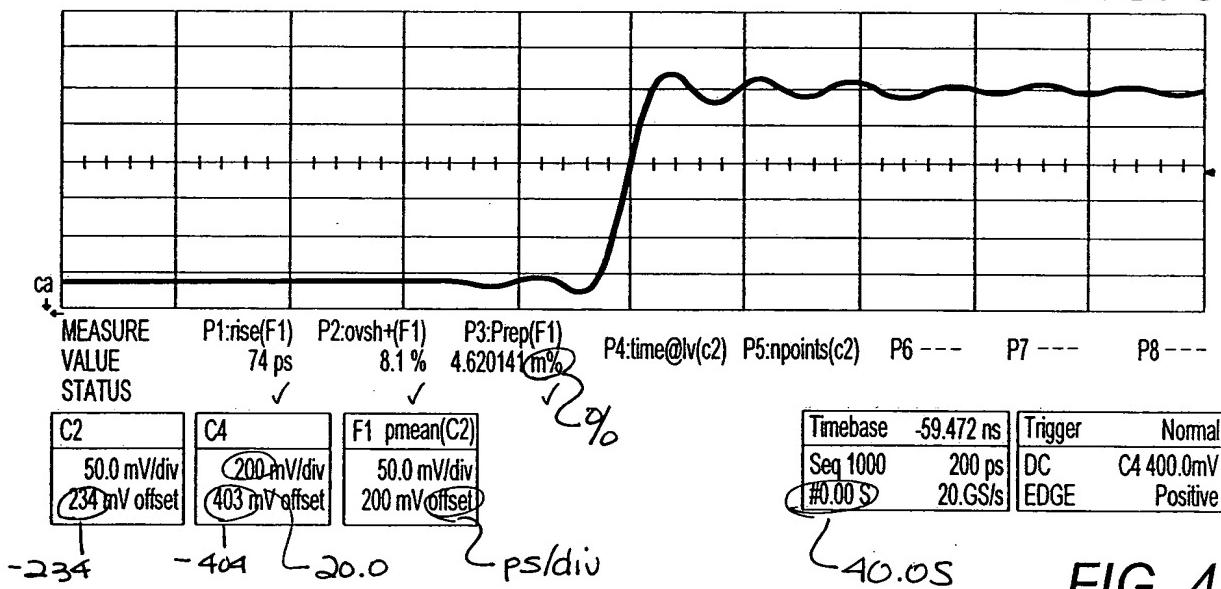


FIG. 4

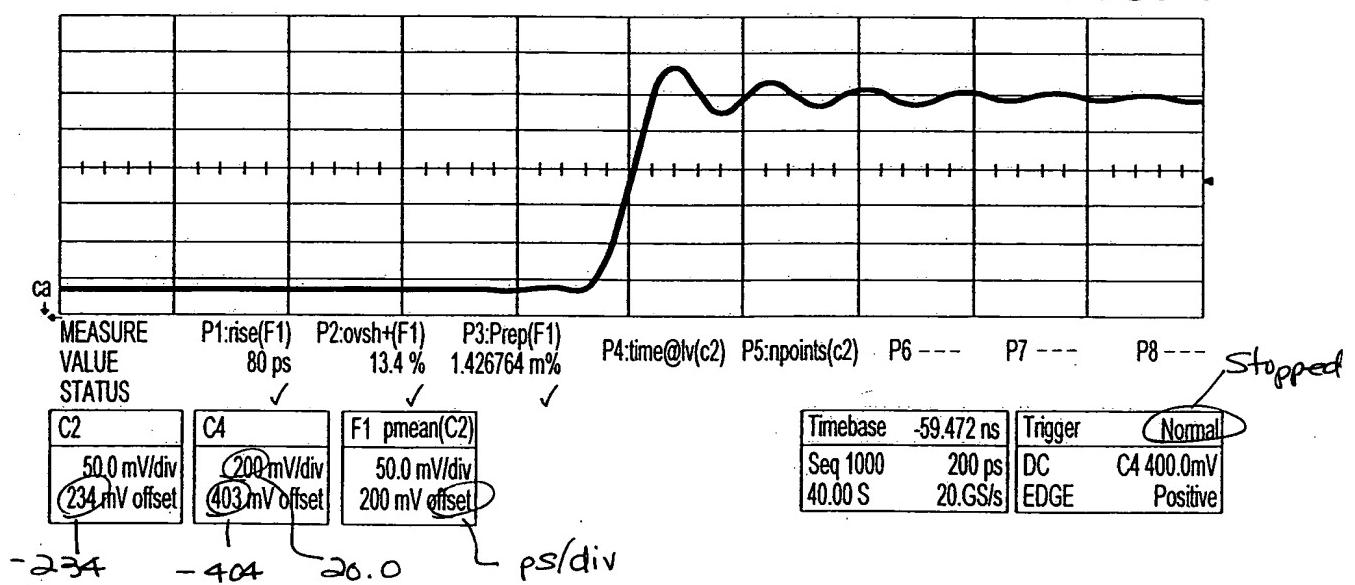


FIG. 5

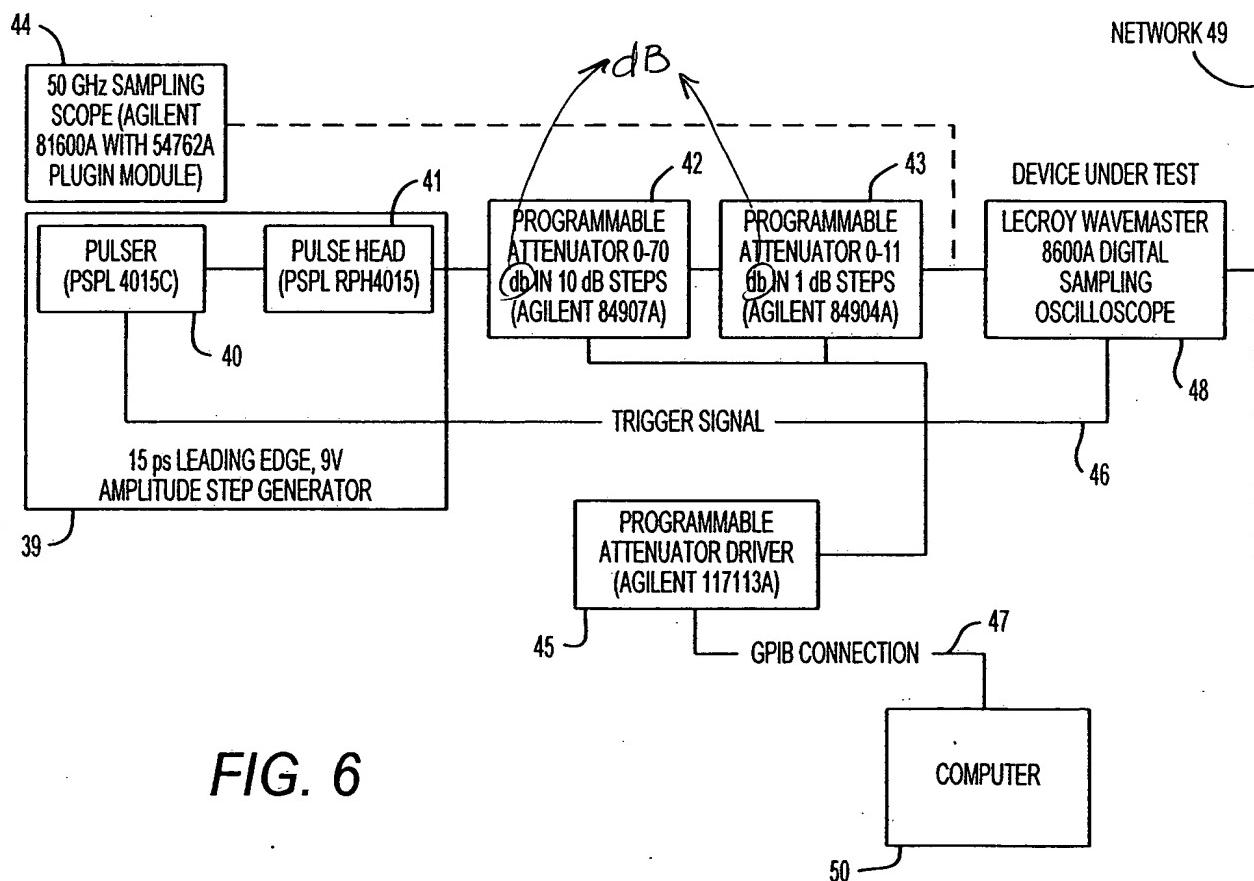
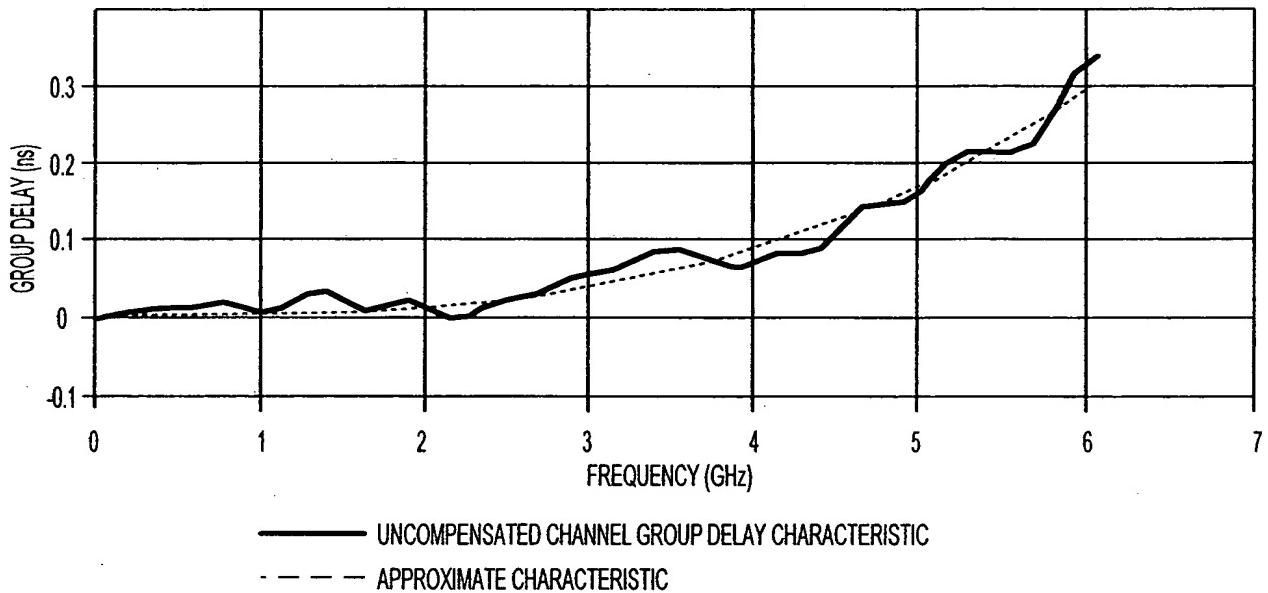


FIG. 7

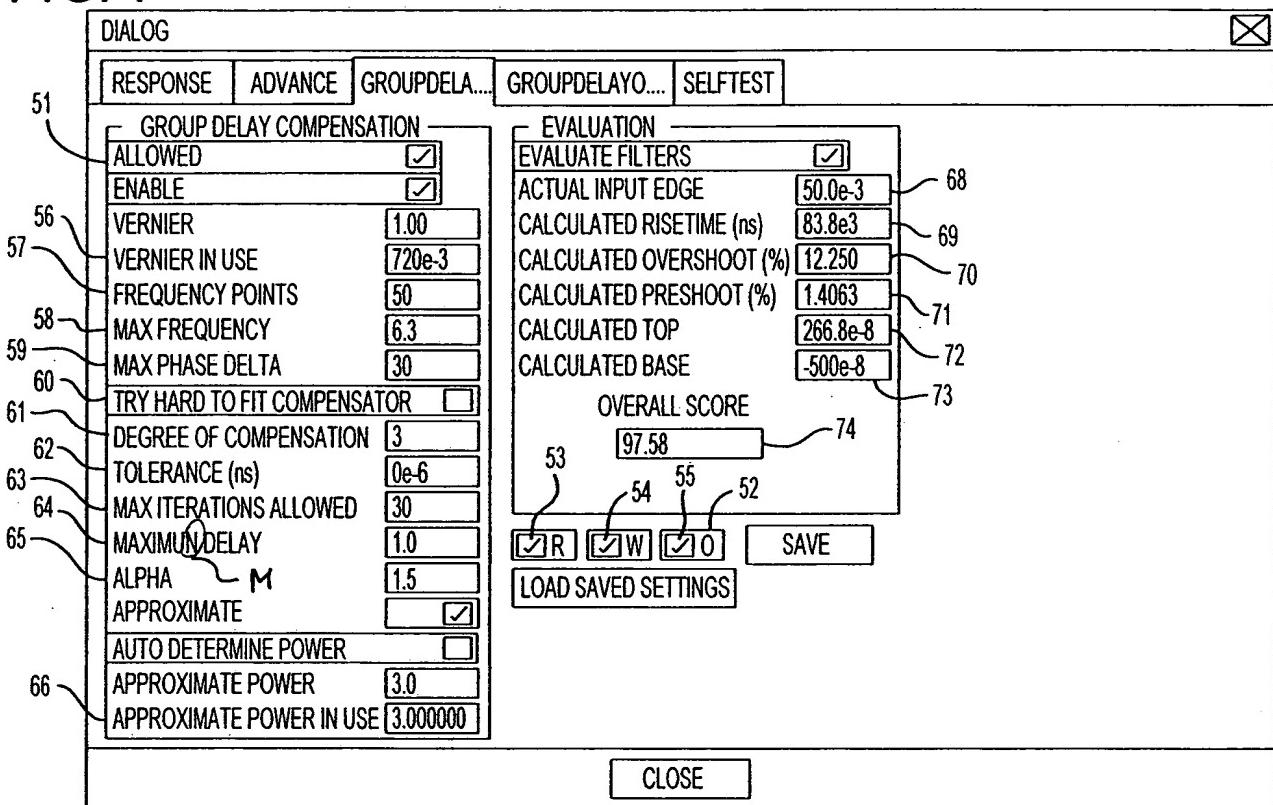
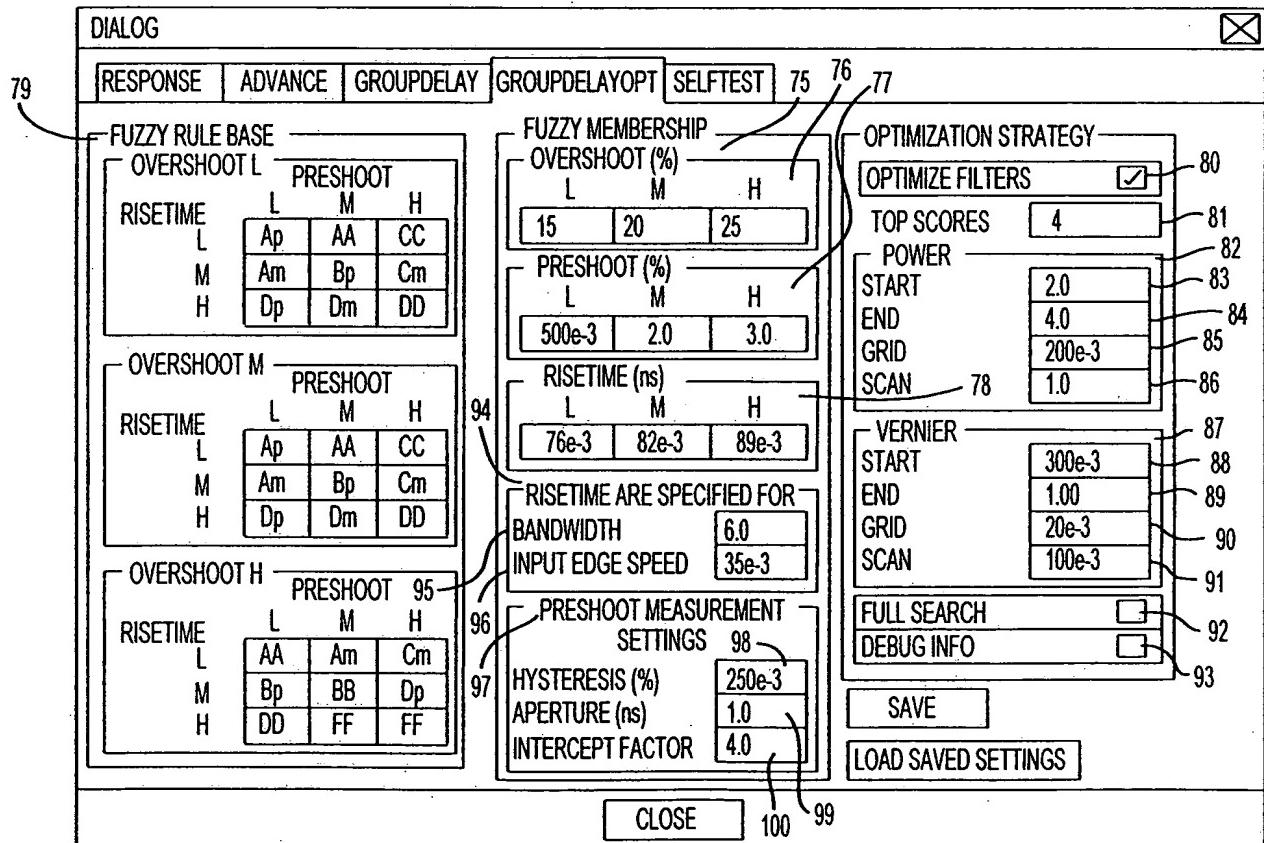


FIG. 8



1	for $n=0 \dots N$			FOR EACH RESPONSE POINT
2	$R_n = GD \text{ comprel}(f_n, g_{i-1}) + gd_{\text{spec}_n}$			CALCULATE A RESIDUAL
3	for $j=0 \dots 2S-1$			FOR EACH COEFFICIENT
4	$J_{nj} = \frac{\partial}{\partial(g_{i-1})_j} GD \text{ comprel}(f_n, g_{i-1})$			CALCULATE AN ELEMENT OF THE JACOBIAN MATRIX
5	$H = J^T \cdot W \cdot J$			CALCULATE THE APPROXIMATE HESSIAN MATRIX
6	for $j=0 \dots 2S-1$			GENERATE A MATRIX WHOSE DIAGONAL IS IDENTICAL TO THE HESSIAN MATRIX AND IS ZERO ELSEWHERE
7	$D_{jj} = H_{jj}$			
8	$\Delta P = (H + \lambda \cdot D)^{-1} \cdot J^T \cdot W \cdot R$			CALCULATE THE CHANGE TO THE COEFFICIENT VALUES
9	$g_i = g_{i-1} - \Delta P$			APPLY THE CHANGE TO THE COEFFICIENTS
10	$mse_i = \frac{1}{N+1} \cdot \sum_n (gd_{\text{spec}_n} + GD \text{ comprel}(f_n, g_{i-1}))^2$			CALCULATE THE NEW MEAN SQUARED ERROR
11	true	$mse_i > mse_{i-1}$	false	DID THE MEAN SQUARED ERROR INCREASE ?
12	$\lambda = \lambda \cdot 10$	FAVOR STEEPEST DESCENT	$\lambda = \frac{\lambda}{10}$	FAVOR NETWONGAUS CONVERGENCE

FIG. 9

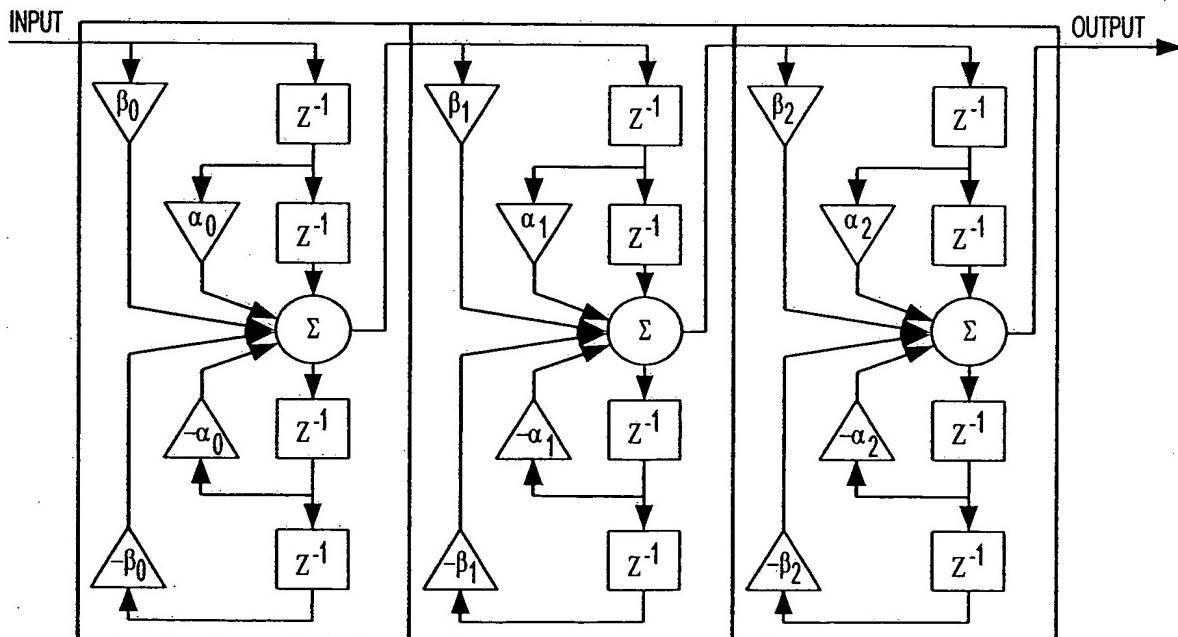


FIG. 10

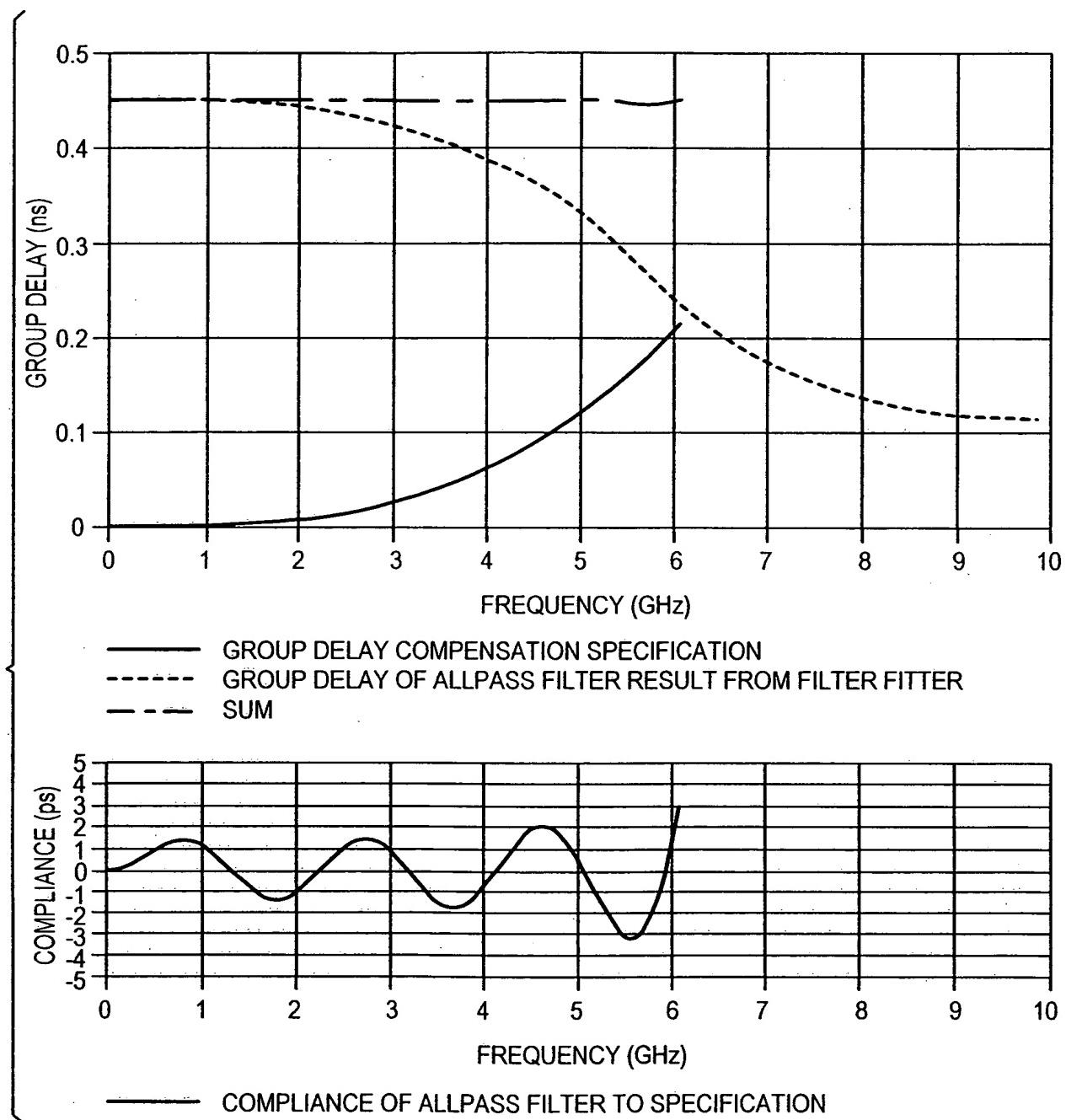


FIG. 11

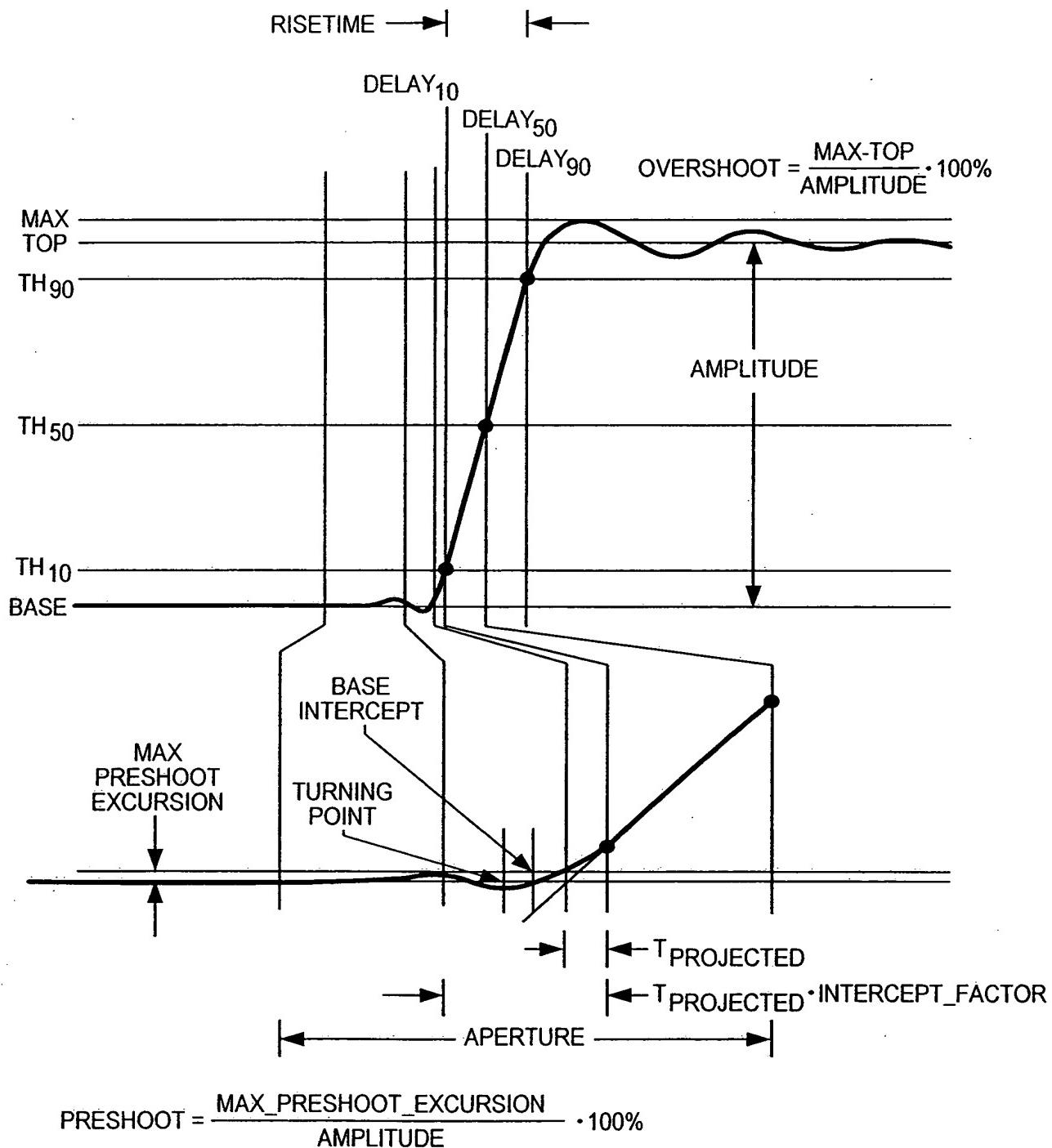


FIG. 12

FIG. 13

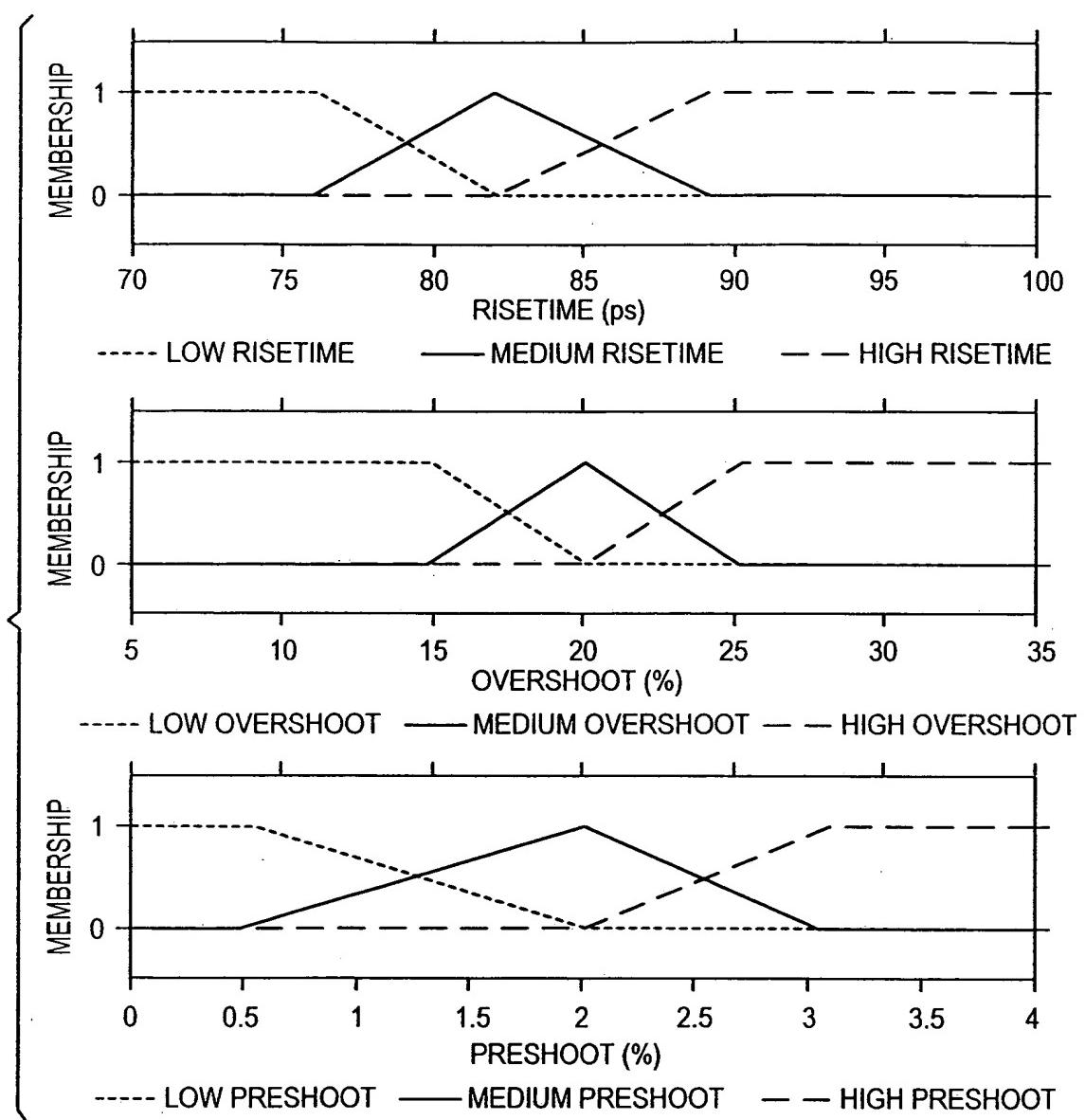
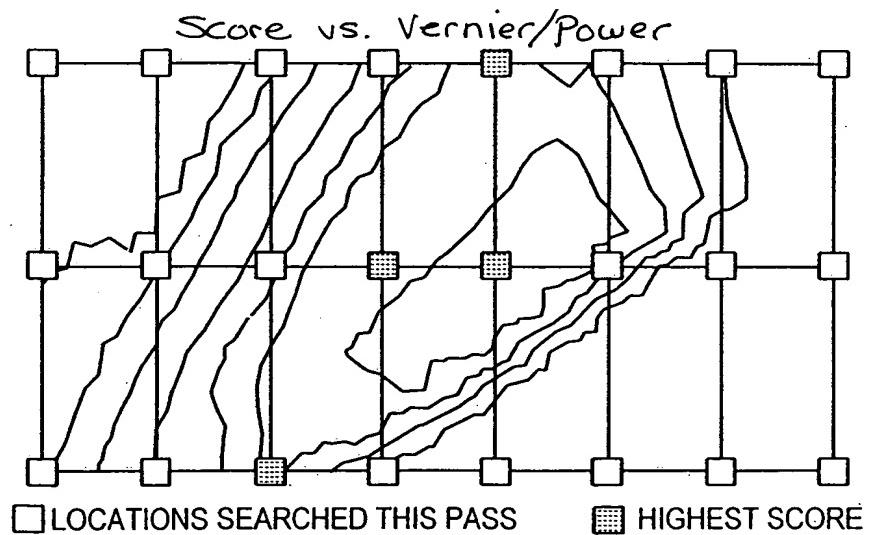


FIG. 14



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Score vs. Vernier/Power

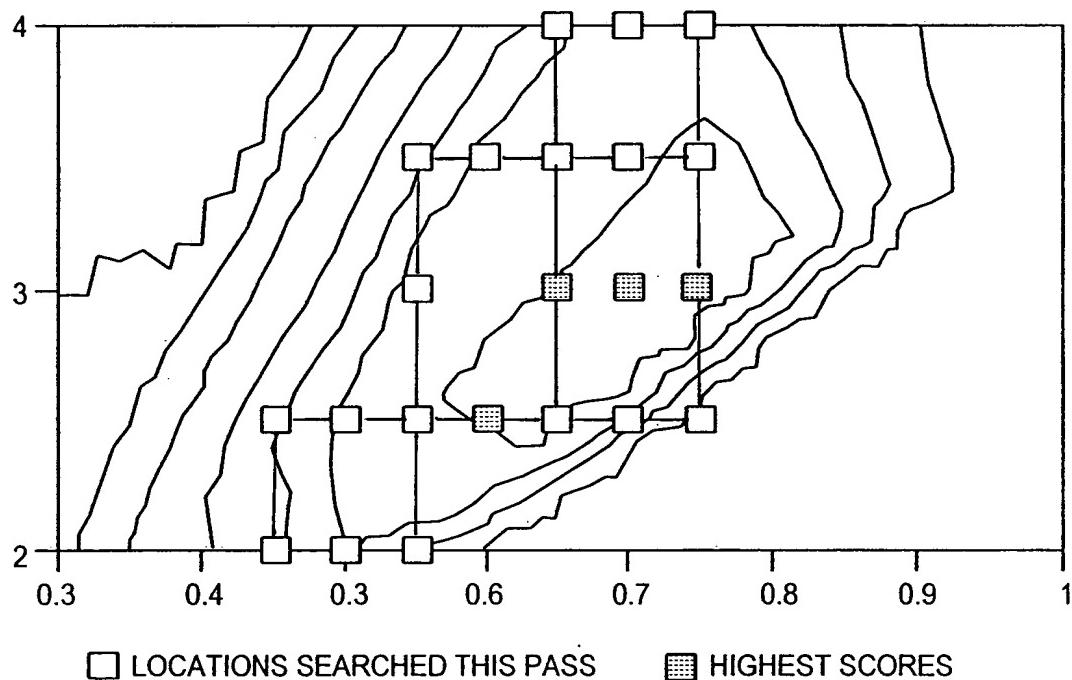


FIG. 15

Score vs. Vernier/Power

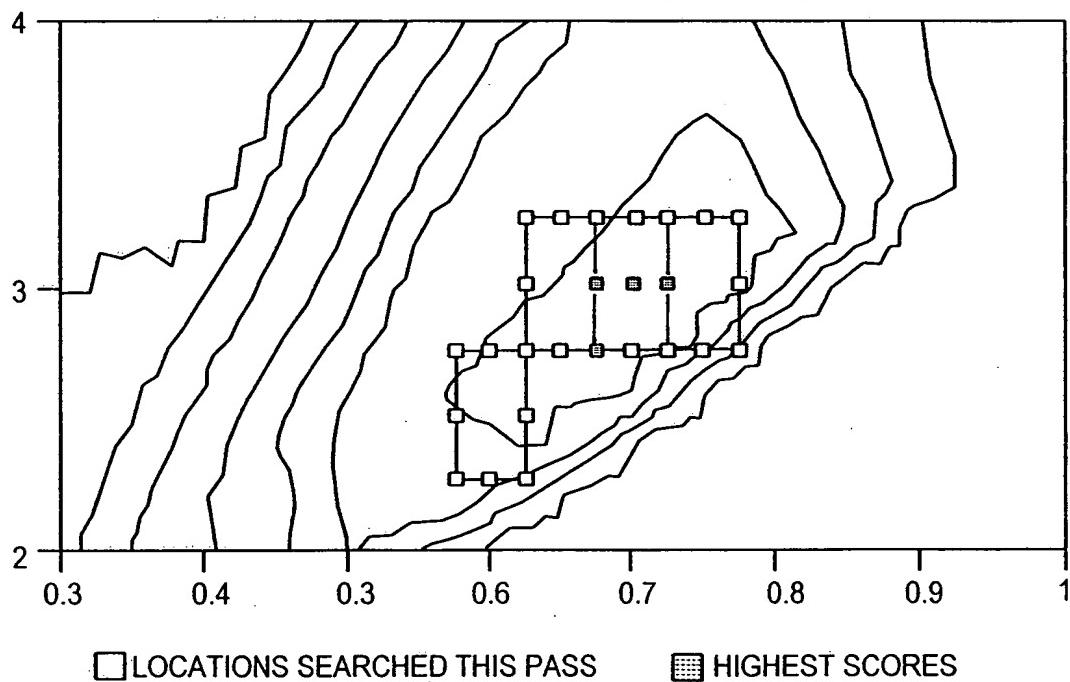


FIG. 16

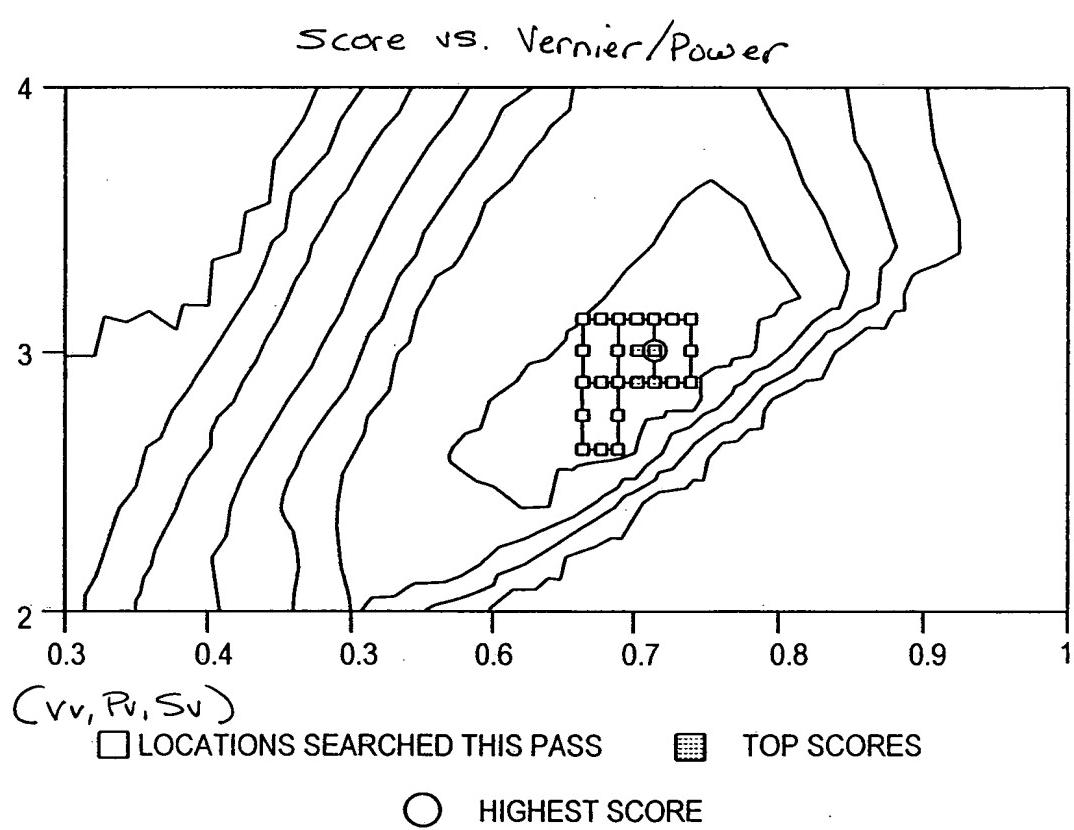


FIG. 17

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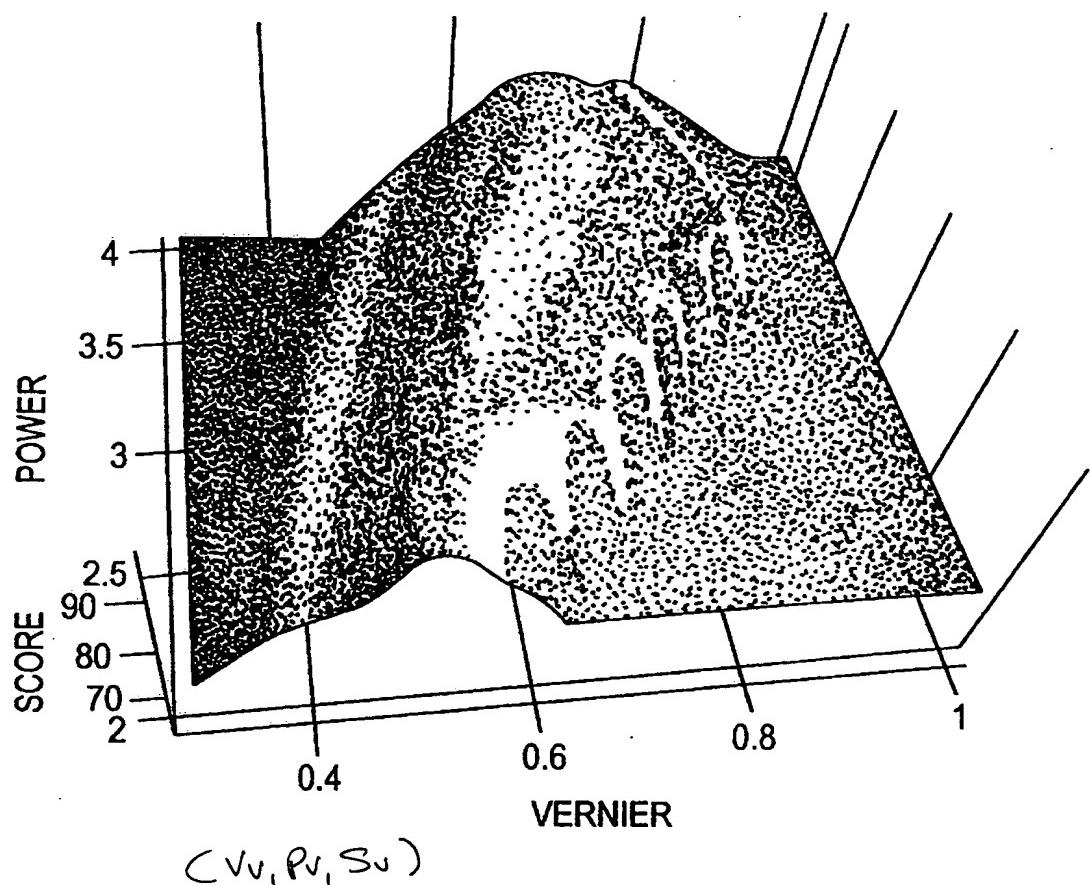


FIG. 18

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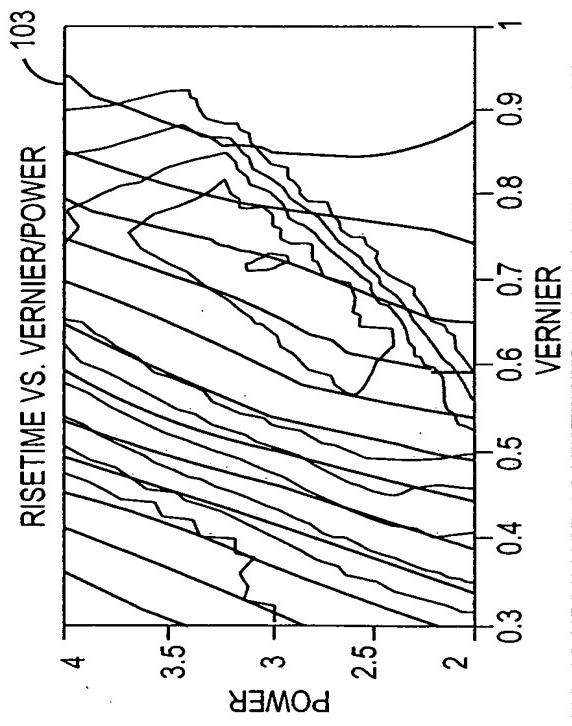
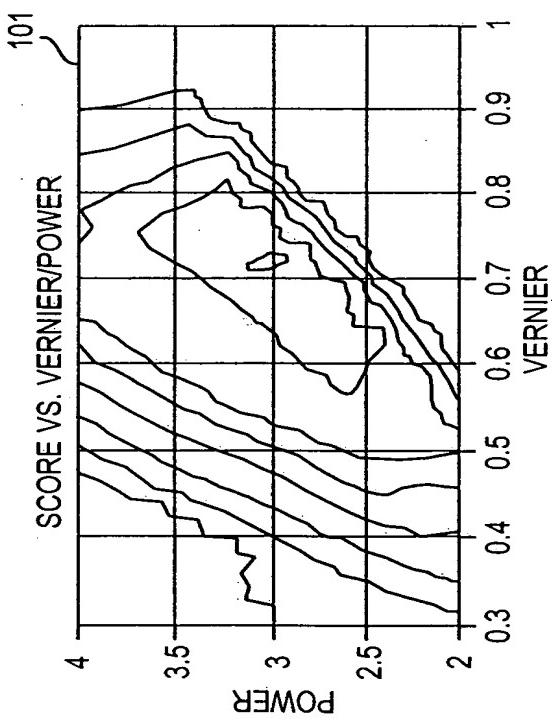
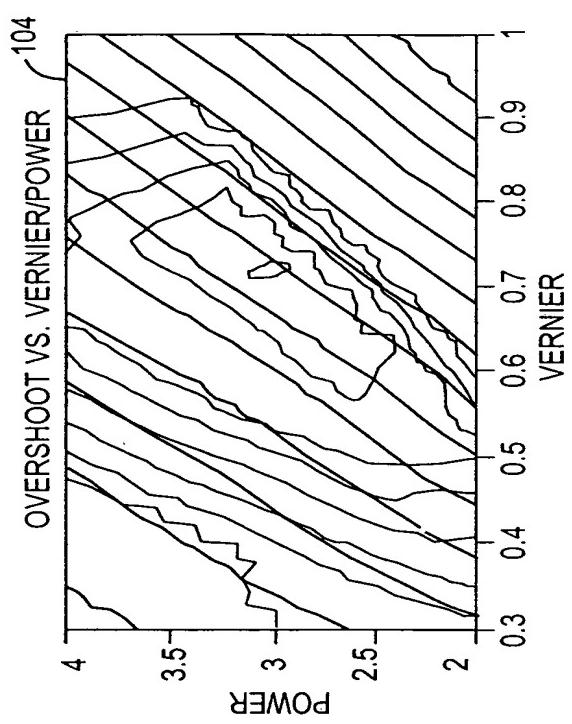
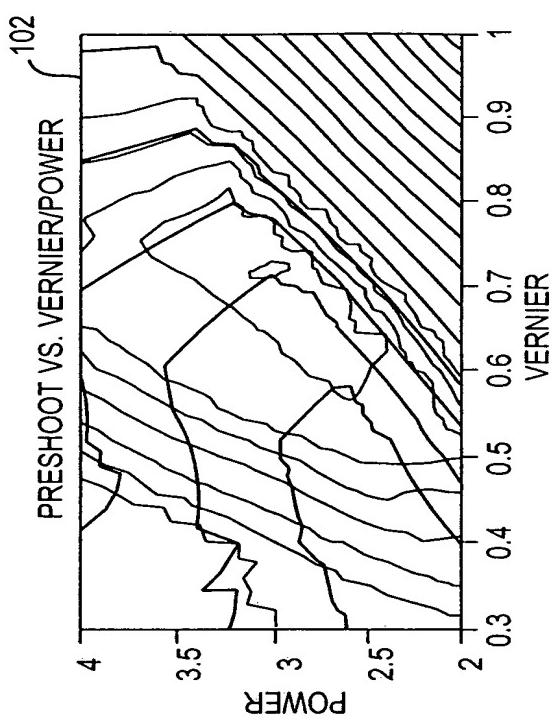


FIG. 19

FIG. 20

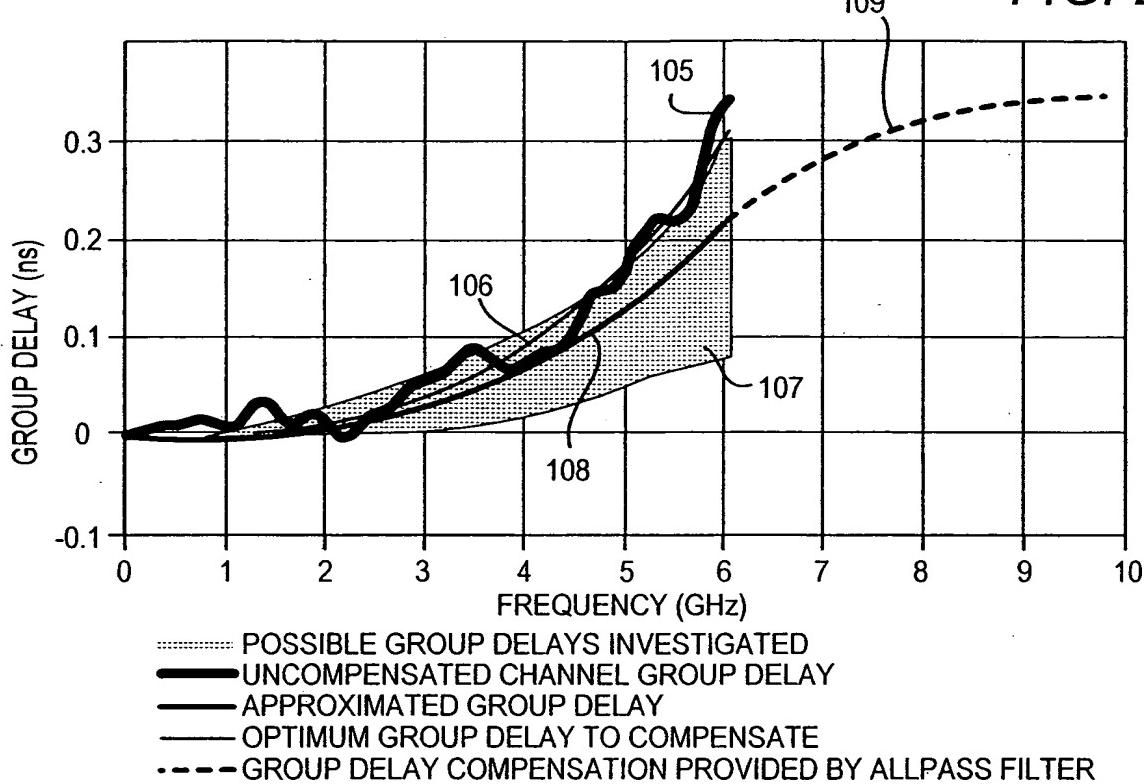


FIG. 21

